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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/611,597 | 06/30/2003 | Curtis C. Ballard | 100200127-1 | 2521 |

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EXAMINER

PATEL, KAUSHIKKUMAR M

ART UNIT PAPER NUMBER

2188

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/611,597 | Applicant(s) BALLARD ET AL. | |
| | Examiner Kaushikkumar Patel | Art Unit 2188 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-22 is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>6/30/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on June 30, 2003 is being considered by the examiner.

Specification

2. The specification is objected to because of the following informalities:
On page 13, paragraph [0038], (fig. 2) should be (fig. 1).
Appropriate correction is required.

Claim Objections

3. Claim 21 is objected to because of the following informalities:
Claim 21 depends on 19. It is understood that claim was meant to depend on claim 20 and treated as such for the remainder of this office action.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 4-6, 8-9, 11, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagai (US 6,36,626 B1).

As per claims 1 and 9, Nagai teaches a cartridge storage system (fig. 2, item 1) comprising:

a movable component (fig. 1, items 5R and 5L)

a removable nonvolatile memory component (RNMC) (fig. 4, item 35); and

logic configured to store operational data indicative of an operational history of the movable component in the RMAC (taught as maintenance interface network (MIN) under the control of micro processing unit extracts the history data and stores in the flash memory. Fig. 4, column 6, lines 49-52 and column 7, lines 30-31).

As per claim 2, Nagai teaches the movable component comprises a data cartridge (fig.1, item 11).

As per claim 4, Nagai teaches cartridge access device (fig 1, items 5R and 5L).

Claims 5 and 11 taught as, accessors transfer selected tape cartridge from one position to another within the library system and tape mounting unit mounts tape cartridges for recording and playback (column 5, lines 39-49 and column 6, lines 30-35).

As per claim 6, Nagai teaches that maintenance interface network under the control of micro processor unit collects the history data from accessors and other components of the tape library and stores in the flash memory (column 7, lines 3-12, lines 30-31 and column 8, lines 23-27).

As per claim 8, Nagai teaches the circuit block diagram of maintenance interface network (MIN) with flash memory (fig. 4). Thus Nagai inherently teaches putting all the components of MIN on single printed circuit board.

As per claim 13, Nagai teaches that accessors transfer selected tape cartridge from one position to another within the library system and maintenance interface network collects the history data from the accessors and stores in flash memory. (column 5, lines 45-49 and column 8, lines 23-27)

Claims 14 and 15 are rejected under the same rationale as claims 2, 4, 5 and 6 above.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai (US 6,236,626 B1).

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As per claim 7, Nagai teaches that failed devices are recognized by the addresses of the devices (column 3, 19-25). Nagai fails to provide device Ids. It would have been obvious to one having ordinary skill in the art at the time of the invention to have used device ids instead of device addresses as taught by Nagai to easily identify the faulty device.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1,3, 9, 12,13, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao et al. (6,143,573) and further in view of Nagai (US 6,236,626 B1).

As per claims 1 and 9, Rao teaches a cartridge storage system (fig. 1) comprising:

a movable component (fig.1, item 156).

Rao fails to teach a removable nonvolatile memory component to store operational data indicative of operational history of the movable component in RNMC. Nagai teaches a flash memory that stores the history data of the various components of

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the library system (column 2, lines 57-67 and continuing column 3, lines 1-9 and lines 56-60)

It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the system of Rao with the teachings of Nagai to store the history data to analyze the cause for an operation error or failure of the system (column 2, lines 52-56).

As per claim 3, Rao teaches movable component comprise vial (fig.1, item 156 is a movable component, and fig 2, item 42 is a vial)

As per claim 12, Rao teach that vial is transported by vial transfer unit from vial storage area to the sampling station (column 4, lines 46-49)

As per claim 13, Rao teaches that vial transporter carries individual vials between vial storage area and as per claim 1 above, Nagai teaches that history data is saved in flash memory.

Claims 16 and 17 are rejected under the same rationale as applied to claims 3 and 12 above.

Allowable Subject Matter

10. Claims 20-22 are allowed.

11. Claims 18-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

As per claim 20, Nagai and Rao teach method for transporting of cartridge from one location within the cartridge storage system, controlling the transportation via integrated manager and storing of operational data to removable nonvolatile memory component (RNMC). Larabell (5,973,919) teaches replacing faulty printed circuit board (PCB) with new PCB but fail to teach removing components from failed PCB to new PCB and continue operation of system based on data from removed component. Nagai and Rao fail to teach removing of RNMC from one integrated manager to another and controlling the operation of cartridge storage system via second integrated manager based on data stored in the RNMC.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaushikkumar Patel whose telephone number is 571-272-5536. The examiner can normally be reached on 8.00 am - 4.30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kaushikkumar Patel
Examiner
Art Unit 2188

kmp
kmp

Kevin L. Ellis
Primary Examiner

Kevin L. Ellis